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Progress in the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States

Report of the Secretary-General

Addendum

Waste management in small island developing States*

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I. Introduction

1. The unique social, economic and environmental characteristics of small island developing States, such as high population density, relative isolation, limited availability of land space, and paucity of human and financial resources, limit the range of possible options for the sound management of waste. Waste management is a serious environmental problem for small island developing States, more significant than for many other countries. It is not limited to the disposal of litter. Sewage, hazardous and toxic wastes also form part of the waste problem. The large amounts of wastes produced by tourists, for example, is a difficult problem for small island developing States, particularly since they are typically generated over a short period, thereby often overloading existing disposal and treatment facilities. Protection of the environment from pollution is extremely important for small island developing States since apart from other reasons that are common to all countries, two important industries — tourism and fisheries — depend on a pristine environment.

II. Problems

2. The major problems in waste management in small island developing States are:

(a) Pollution of groundwater, surface and marine pollution from land-based sources, such as domestic sewage, industrial effluents and agricultural run-off. They carry risks for human health, and can degrade habitats, such as coral reefs, and tourist attractions, such as beaches. Many small island developing States receive bad publicity related to disease outbreaks and the destruction of fisheries, which can have major adverse economic impacts;

(b) The management of toxic substances, such as pesticides, waste oil and heavy metals. Most small island developing States do not have the systems or physical capacity to isolate and dispose of such substances;

(c) Sewage treatment facilities. In many small island developing States, such facilities are inadequate, either because they are overloaded or because of a shortage of trained manpower. As a result, poorly treated effluent is often discharged into the environment;

(d) Ineffective regulations. Some small island developing States have spent a considerable amount of time and financial resources in developing regulations. However, regulations have not been very effective in many cases because of inadequate institutional and human resource capacities to enforce them;

(e) Lack of waste disposal sites. Gullies and the marine environment are still used as disposal sites by some small island developing States because of the shortage of land and inadequate capacity to collect garbage. The inability to manage solid waste disposal facilities is a common problem for small island developing States, and disposal sites can easily become a focus of disease transmission;

(f) Lack of facilities for storage and disposal of hazardous wastes.

III. Progress made in dealing with waste management problems

3. Significant progress had been made in waste management in a number of small island developing States. Most of the successful initiatives preceded the adoption of the Programme of Action for the Sustainable Development of Small Island Developing States, which served

to draw the attention of the international community to waste management problems and other significant issues of small island developing States. Most activities initiated subsequent to the Programme of Action are still in an early stage of implementation, even though attention to the sustainable management of waste has increased in both the public and private sectors.

4. The private sector has become actively involved in recycling biodegradable and non-biodegradable materials in some small island developing States. Materials being recycled are paper, plastics, can metals and used oil. Economic incentives to reduce particular wastes, such as a deposit refund system for cans and bottles, are in use in virtually all regions.

5. Regulation of waste management takes the form of different laws and ordinances administered by various government sectors. Several small island developing States, such as the Bahamas, Saint Kitts and Nevis, Seychelles and Dominica, have initiated regulations specifically directed to waste management. Many have developed further strategic plans for the sustainable management of solid and liquid wastes in specific areas.

6. In the Pacific region, the South Pacific Regional Environment Programme (SPREP) is assessing the abilities of eight island States to manage chemicals. Papua New Guinea is developing a pollutant release and transfer register, while the Marshall Islands has been assisted in removing and disposing of contaminated oil. Barbados commissioned a technical working group on the management of hazardous wastes, and has developed a programme of action for sustainably disposing of hazardous wastes. Several countries have been able to secure external donor support for improving their hazardous waste management infrastructure, including through the development of legal and regulatory frameworks.

7. Sanitary landfills have been developed in Seychelles and Mauritius, and are under development in various Caribbean island States. In the South Pacific region, some small island developing States are improving their existing landfills. Several countries, such as Barbados, Belize, Jamaica, Trinidad and Tobago, and Maldives, have secured donor support for upgrading waste management infrastructure. These efforts include the upgrading of waste and sewerage systems to serve small towns, the rehabilitation and maintenance of sewerage systems, and institutional strengthening.

8. Some small island developing States in the South Pacific region have found the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal inadequate, in that it does not prohibit the movement of hazardous wastes from the North to the South. They have, therefore, adopted the Waigani Convention, with the goal of (a) banning the importation of hazardous and radioactive wastes; (b) controlling the transboundary movement of hazardous wastes; and (c) managing hazardous wastes throughout the region.

9. Through regional institutions, such as SPREP and Indian Ocean Commission, programmes for minimizing wastes and pollution control have been prepared and implemented in a number of small island developing States. The programmes are designed to develop and implement strategies for the prevention and control of pollution of land and coastal and marine resources. Several training workshops have also been conducted within the framework of those regional organizations. The Caribbean small island developing States are addressing the management of ship and shore-generated wastes through an Organization of Eastern Caribbean States (OECS)/World Bank waste management project.

10. Though many small island developing States have yet to ratify the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) or the Basel Convention, some small island developing States have nevertheless received assistance to prevent pollution under those Conventions. For example, the International Maritime

Organization (IMO) and the Global Environment Facility (GEF) are assisting 22 countries in the Caribbean to address the legal and technical obstacles preventing the efficient implementation of MARPOL 73/78, as well as to facilitate the special area statutes for the wider Caribbean area under annex V of MARPOL 73/78. Components of this programme include the assessment of existing waste management systems, the development of criteria for port waste reception facilities, the development of integrated waste management alternatives and public awareness activities.

A case study in brief: regional oil spill contingency planning project for the Indian Ocean small island developing States

The objective of this proposed project is to protect the environmental integrity of the coastal and marine ecosystems of a large, biologically rich and relatively pristine part of the western Indian Ocean. The project will address this objective by helping the Comoros, Mauritius and Seychelles, as well as Madagascar, to ratify and comply with the International Convention on Oil Pollution Preparedness, Response and Cooperation, which requires States to develop and maintain adequate capacity to respond to oil pollution emergencies. These countries will be assisted in ratifying the International Convention on Civil Liability for Oil Pollution Damage 1992 and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage. They will be provided with the necessary legal technical assistance for ratification and subsequent formulation of national legislation.

Specific objectives of the project are to establish appropriate legal and institutional frameworks to ensure compliance with relevant international conventions; develop national and regional contingency planning processes; set up appropriate national and regional oil spill response capacity; and establish sustainable financial and institutional agreements, and generate synergy through regional cooperation arrangements. These objectives will be addressed by building public awareness and preparedness at the national level and by establishing and organizing oil spill response capacity at the national and regional levels. The project complements the institutional framework provided by the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Areas of the Eastern African Region.

The global objectives of the project are to limit the contamination of international waters and to conserve globally significant marine and coastal biodiversity by addressing the threat of oil spills in the West Indian Ocean region; involving the private sector in utilizing technological advances to resolve transboundary concerns associated with such threats; and developing a financing mechanism to sustain the national and regional capacity which is to be created by the project to deal with oil spills.

The main sponsor of the project is GEF, which is providing US$ 3,941,000. The co-sponsors of the project are IMO, the International Petroleum Industry Environmental Conservation Association, Reunion (France) and South Africa, who will provide necessary expertise. The World Bank is implementing the project on behalf of GEF. The Indian Ocean Commission is the recipient of the grant on behalf of the beneficiary countries.

11. The Caribbean region is implementing the Global Programme of Action for the Control of Marine Pollution from Land-based Activities and the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, through development of a protocol to control land-based pollution of the wider Caribbean region. Small island developing States in the Indian Ocean have prepared overviews of land-based sources of pollution, as part of a transboundary diagnostic analysis of the western Indian Ocean.

12. In 1990, Mauritius initiated the preparation of an environment sensitivity map and a national contingency planning project on its own initiative, with the assistance of UNEP. The country also established a national contingency planning project team, comprising persons from the public and private sectors and non-governmental organizations. The purpose was to refine the national oil spill contingency plan. The country also prepared a Port Louis harbour oil spill contingency plan, and through its Environment Protection Act made it obligatory for oil importers to have an approved oil spill response plan. Those efforts inspired the sponsors to share this experience in the region. The beneficiary countries are bringing their own contribution, in kind, to the project, estimated to value US$ 695,000.

IV. Constraints

13. In implementing waste management measures, implementing agencies have been faced with a number of constraints. The major ones are:

(a) Many small island developing States have not ratified MARPOL 73/78 or the Basel Convention, which is hampering progress;

(b) Because of inadequate skilled manpower, implementation of waste management activities has been constrained. For example, the operation of landfill and sewage treatment works has been hampered by insufficient trained manpower. For the same reason, most solid waste dumps are not properly managed and are sources of diseases;

(c) Suitable financial planning for the entire cycle of waste management has not been well developed in most small island developing States, resulting in severely underfunded operations. This is worsened by the lack of financial autonomy; where waste management departments are self-financing, the generated revenue is often used for other purposes;

(d) Small island developing States have very limited land area, which limits their use of conventional technologies requiring large areas of land; thus, small island developing States have no option but to adopt appropriate policies to reduce the amount of waste generated, and appropriate technologies to deal with waste either at its source or before its disposal. Unfortunately, small island developing States often do not have access to technologies that would meet their needs;

(e) Most small island developing States do not have environmentally sound waste management plans. For the few that do have them, plans are not well integrated with other development concerns.

V. Priorities for future action

A. National level

14. Small island developing States need to carry out the following priority actions which have been identified in national, regional and international reports:

(a) They need to adopt an integrated waste management system, focusing on waste minimization, reuse, recycling and covering issues related to health and ecology. Such a system should be based on plans that make provisions for legal frameworks, institutional arrangements, financial strategies, technical systems and the role of the private sector, non-governmental organizations and civil society at large;

(b) There is an urgent need for small island developing States to improve their management of landfills and to ensure the proper functioning of existing sewage treatment works before embarking on new projects. Management plans should ideally encompass operational requirements with appropriate guidelines/standards, including capacity-building and regular monitoring;

(c) Small island developing States should promote the reduction of waste at its sources and the reduction of the total volume of waste requiring disposal. Waste reduction should include use of clean technologies, reuse and recycling. A public awareness campaign to promote reduction of waste at household and community levels is also fundamental;

(d) Development and introduction of a regulatory framework, including standards and guidelines for managing waste, are needed in many small island developing States. In cases where such regulations already exist, enforcement measures may need to be strengthened;

(e) Port reception facilities for ship-borne wastes is of fundamental importance for small island developing States. Such facilities should also include efficient waste disposal systems. Moreover, they should be isolated from the general public because of possible diseases or pests associated with the wastes;

(f) Small island developing States need suitable long-term storage facilities for hazardous waste, and need to identify suitable final disposal options. Public and private sector partnerships are critical for the sound management of hazardous wastes.

B. Regional level

15. The following constitute priorities for regional organizations for the next five years:

(a) Providing training on (i) the design, operation and maintenance of landfills, (ii) the design, operation and maintenance of sewage treatment works, and (iii) the reuse and recycling of waste;

(b) Development and implementation of regional action plans for implementing environmental agreements. Examples are the Global Programme of Action for the Protection of Marine Environment from Land-based Activities, the Basel Convention and regional conventions, such as the Waigani Convention;

(c) Development of regional waste management strategies for treating non-biodegradable wastes, such as plastics. Strategies may emphasize the installation of new facilities or the improvement of existing recycling plants for areas where waste can be

treated. They should include provisions for transportation of waste, use of economic instruments and training of staff;

(d) Development of regional technical guidelines on issues of common concern to small island developing States, such as waste minimization, recycling, composting, removal of unused chemicals, reuse of wastewater and upgrading disposal sites. Pilot projects should be conducted before such guidelines are widely adopted;

(e) Promotion of legal frameworks, including standards for collection, treatment, recycling, reuse, processing and final disposal of wastes;

(f) Facilitation of exchange of successful experience and information among small island developing States on a regional basis, including environmentally sound technologies, should be accorded priority importance in regional cooperation arrangements. Regional agencies should assist small island developing States with the collection and transfer of information concerning sound practices, such as the improved performance of septic systems.

C. International level

16. The international community should assist small island developing States in their efforts to:

(a) Implement the provisions of the existing international arrangements, particularly of the Global Programme of Action for the Protection of Marine Environment from Land-based Activities and MARPOL 73/78;

(b) Reduce wastes by (i) promoting the transfer of cleaner production technologies, preparing a source book on available technologies and conducting pilot studies, and (ii) assisting regional institutions in developing and promoting guidelines for the recycling and reuse of waste;

(c) Strengthen national and regional capabilities to deal with waste-related issues and capacity-building for the development of national strategies incorporating legislation, regulatory frameworks and environmentally sound technologies. Monitoring and assessment should be a focus of such support.

17. International bodies should establish or strengthen systems and networks for the dissemination of information on appropriate environmentally sound technologies, recycling and disposal technologies by improving existing information exchange systems and databases.